12. (New) The hexagonal lithium-cobalt composite oxide for a lithium secondary cell according to Claim 1, which is obtained by a process which comprises dry blending a cobalt oxyhydroxide powder having an average particle size of from 1 to 20 μm and a specific surface area of from 2 to 200 m^2/g, a lithium carbonate powder having an average particle size of from 1 to 50 μm and a specific surface area of from 0.1 to 10 m^2/g, and a powder of an oxide of metal element M having an average particle size of at most 10 μm and a specific surface area of from 1 to 100 m^2/gm, and firing the mixture at a temperature of from 850 to 1,000°C in an oxygen-containing atmosphere.

13. (New) A hexagonal lithium-cobalt composite oxide for a lithium secondary cell, which is represented by the formula $LiCo_{1-x}M_xO_2$, wherein x is $0 < x \leqq 0.02$ and M is at least one member selected from the group consisting of Ta, Ti, Nb, Zr and Hf, and which has a half-width of the diffraction peak for (110) face at $2\theta=66.5\pm1°$, of from 0.070 to 0.180°, as measured by the X-ray diffraction using CuK_α as a ray source.

14. (New) The hexagonal lithium-cobalt composite oxide for a lithium secondary cell according to Claim 13, which is obtained by a process which comprises dry blending a cobalt oxyhydroxide powder having an average particle size of from 1 to 20 μm and a specific surface area of from 2 to 200 m^2/g, a lithium carbonate powder having an average particle size of from 1 to 50 μm and a specific surface area of from 0.1 to 10 m^2/g, and a powder of an oxide of metal element M having an average particle size of at most 10 μm and a specific surface area of from 1 to 100 m^2/gm, and firing the mixture at a temperature of from 850 to 1,000°C in an oxygen-containing atmosphere.

IN THE ABSTRACT

On a separate page, please replace the present Abstract with the following: